ORIGINAL RESEARCH

Challenges in Implementing the WHO Hospital Readiness Checklist for the COVID-19 Pandemic in Indonesian Hospitals: A Qualitative Study

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Purpose: To assist hospitals in preparing for a surge of patients during the COVID-19 pandemic, the World Health Organization (WHO) published an assessment tool called the rapid hospital readiness checklist. This checklist has been used by numerous countries, including Indonesia. However, several technical issues were discovered, primarily as a result of the manual recording of the checklist on a spreadsheet. This study aimed to identify challenges related to the hospital readiness checklist that was implemented in Indonesia.
Materials and Methods: This qualitative study used focus group discussions to collect data. The study was conducted in East Java, Indonesia, in October 2021, with the participation of nine organizations from the provinces of East Java and Bali. Data were thematically analyzed, and the findings were presented in a narrative format.
Results: Hospital participants had experience in filling out a hospital readiness checklist every 3 months. Some challenges faced by the hospital was the need to manually enter data into the checklist, lack of coordination and communication, there were various perceptions in hospitals as there was no technical guide in completing the checklist, absence of feedback, and the data returning empty due to filling errors. Additionally, City X health office also identified challenges in monitoring and evaluating the hospital checklists.
Conclusion: This study, which included both hospitals and the health office, described the challenges encountered in the assessment of the hospital readiness checklist. Both hospitals and DHO experienced some challenges with the current system. The checklist has the potential to evolve into a public reporting to improve efficiency and faster decision-making.
Keywords: COVID-19, checklist, hospital readiness, self-assessment

Introduction

Since the emergence of COVID-19 in 2019, hospitals have made a variety of efforts to reduce its transmission, including managing healthcare workers and hospital facilities and developing telemedicine.[1,2] To help hospitals prepare for the COVID-19 pandemic, the World Health Organization (WHO) published an assessment tool called the rapid hospital readiness checklist for COVID-19.[3] The instrument contains 12 essential components for managing COVID-19, which can be used in hospitals worldwide. The checklist has been used in numerous countries.[4–9] Nepal, Nigeria, and Lesotho, for example, have already conducted centralized assessments.[4–6] In the meantime, other countries conduct provincial assessments and hospital self-assessment.[7–9]

Indonesia has also implemented this checklist based on the decision of the Director-General of Health Services,[10] whereby the hospital performs the checklist on its own every 3 months. The assessment results are uploaded by the hospital to the Ministry of Health website. The assessment and verification are performed by the city's or district's health office (DHO) and the provincial health office (PHO). The checklist is available as an Excel spreadsheet. The supporting documents, on the other hand, cannot be directly uploaded into the Excel files[10] and must be submitted to DHO. DHO

manually accesses, recapitulates, and maps hospital readiness in their respective areas.[10] Some site visits are usually scheduled to hospitals with low performance or hospitals that have not completed the checklist. The recapitulation results are then forwarded to the Ministry of Health. All processes must still be completed manually, which may result in file loss or damage and is inefficient, in contrast to the pandemic era, when decisions must be made quickly and efficiently.

Hospitals' readiness and resilience must be assessed because they must be fully operational during a disaster or outbreak.[11,12] Studies about Indonesian hospital readiness were conducted in Sumatra, Kalimantan, Java, Bali–Nusa Tenggara, Maluku, and Papua during the first year of the COVID-19 pandemic. The findings revealed only 46% of the PHOs conducted routine evaluations of the COVID-19 operational plan. Although almost all hospitals have policies in place for COVID-19 pandemic preparedness, they have not been evaluated in terms of policy implementation or preparedness simulations.[13] However, several other hospitals have conducted independent assessments with sufficient results.[14,15]

The significance of hospital readiness is required not only in dealing with the COVID-19 pandemic but also as a lesson in dealing with other disasters. Stakeholders require an assessment of hospital preparedness to make decisions with regard to disaster management. As a result, this research aimed to identify challenges of the hospital readiness checklist that has been implemented in Indonesia.

Materials and Methods

Study Design
This study in a descriptive qualitative study with phenomenology approach focuses on the experience of hospital staff in using hospital readiness checklist. We collected data through focus group discussion with all stakeholders involved in the hospital readiness checklist assessment, including the DHO and hospitals in the provinces of East Java and Bali.

Settings
This study was conducted in East Java, Indonesia, in October 2021, with the participation of nine organizations that consisted of eight hospitals and one DHO from the provinces of East Java and Bali.

Participants
We used purposive sampling to select the hospitals and focus group participants. The hospital inclusion criteria were as follows: public or private, A or B hospital classification (having minimum of 200 beds), and having Excellent (Paripurna) accreditation status. We included hospitals with A or B status and only Excellent status because we assumed they were better at implementing the checklist. Prior the focus group, we asked hospitals staff whether they had completed the checklist, but we did not collect or assess the quality or completeness of the checklist. If yes, then those in charge of completing the WHO checklist assessment at selected hospitals in Java and Bali, as well as those in charge of monitoring the assessment at the hospital level, were invited to the focus group.

Although 11 organizations were invited to participate, only nine organizations attended the focus group. The focus group participants could be seen in Table 1.

Public hospitals made up 75% of the hospital participants. A and B represented hospital classification according to number of beds, for example A hospital must have at least 250 beds, while a hospital with a B classification must have at least 200 beds. Meanwhile, hospitals receive an excellent level accreditation certificate if during the survey received a minimum score of 80%.

Data Collection
Data were collected in October and November of 2021. The first author gathered information through a Zoom virtual focus group. The steps for launching virtual focus groups began with a team meeting, followed by the recruitment process, the sending of letters to participants and informed consent through email, the signing of documents, a reminder 1 day before the event, and follow-up after the focus group day.[16] All selected hospitals and DHO received a formal letter, a focus group discussion guide, and questions related to the implementation and the challenges in implementing the checklist. A moderator with a background in medicine and hospital administration led the focus group. The

Table 1 Focus Group Participants Based on Hospital Type, Classification and Accreditation Status

Stakeholders	Number of Participants	Type of Hospital	Hospital Classification	Hospital Accreditation Status
City Health Office	1	–	–	–
East Java Province				
Hospital A	1	Private	B	Excellent
Hospital B	1	Private	B	Excellent
Hospital C	1	Public	B	Excellent
Hospital D	1	Public	A	Excellent
Hospital E	1	Public	B	Excellent
Hospital F	1	Public	B	Excellent
Hospital G	4	Public	B	Excellent
Bali Province				
Hospital H	1	Public	A	Excellent
Total	12	–	–	-

moderator's roles were to establish the context, guide the discussion, and engage the participants in an interactive dialogue. The moderator also set the tone of the discussion, make all participants feel at ease and involved. The discussion was held in the Indonesian language for about 120 min. The questions concerned the experience and difficulties encountered while completing a hospital readiness checklist. All participants provided informed consent and agreed to be recorded, which included the publication of anonymized responses.

The discussion was transcribed by research assistants and were translated into English. We did not return the transcription to the participants because we had a time constraint during the study period.

Data Analysis

Prior to conducting the thematic analysis, each author thoroughly read the transcription and highlighted the key statements concerning the difficulty in completing the hospital readiness checklist. We followed the procedures for conducting qualitative data analysis from the previous study.[17] The first researcher then grouped the similar data and explored the patterns between data. The data was then coded to identify issues, topics, similarities, and differences from the participants' perspectives.[18] Data were presented in a narrative format and interpreted based on the researcher's interpretation.[19] The first author compiled the transcription into a codebook and all other authors were involved in the discussion of theme and validation.

Ethics Approval

Ethical approval for the study was obtained from the Ethics Committee Faculty of Nursing, Universitas Airlangga, Indonesia (No. 2316-KEPK).

Result

The findings of this study were organized into two themes, namely, experiences and challenges in the implementation of the hospital readiness checklist.

Experiences in Completing the Hospital Readiness Checklist

The findings indicated that hospitals had experience in filling out a hospital readiness checklist every 3 months, and the DHO also had experience in monitoring and evaluating the hospital checklists. Some of the participants' expressions were as follows:

> The survey data was completed by 59 hospitals in City X, and we are currently analyzing the second quarter feedback evaluation. (DHOX)

> We went through the hospital readiness checklist about two or three times. (Hospital F)

> We already have experience with disaster preparedness systems [including filling out checklists] at the hospital. (Hospital H)

> We usually fill it out every quarter and then send it to the Provincial Health Office, with a copy to the District Office. (Hospital F)

Challenges in Completing the Hospital Readiness Checklist

All of the hospital participants agreed that they had manually completed the checklist. The findings also indicated that hospitals and DHO faced the same challenges in implementing the hospital readiness checklist, particularly in terms of coordination and communication.

> So far, no coordination with the health ministry has occurred in order to upload supporting evidence. So, we just fill out the spreadsheet. (DHOX)

> There are several difficulties in filling out the form, such as [unable to upload] physical evidence of documents, minutes, or attendance lists in hardcopy form that we must report. (Hospital H)

> In our opinion, [internal] coordination regarding how to do this [filling] properly is quite tricky because the coordination and communication patterns are actually part of the hospital system itself. (Hospital D)

Hospital participants highlighted their various perceptions of completing the checklist:

> When it comes to filling out forms, we all have different perspectives. (Hospital G)

> If no technical instructions [for each item] are provided, there is concern about the definition in filling it out differently for each hospital. (Hospital B)

Additional issues were the lack of feedback and the data returning empty due to filling errors.

> So far, we believe there has been no feedback. (Hospital F)

> When we filled out the forms in the first, second, or third trimester, the data we had previously saved was not saved, so we had to retype and re-upload it. We mean, if this is related to the previous month and the next month, we can [save data and] evaluate what we haven't done. (Hospital G)

According to DHO staff, feedback was provided in the form of a once-a-three-month meeting to which all hospitals were invited. The hospital participants, on the other hand, thought this was still lacking.

Recommendations Regarding the Implementation of the Hospital Readiness Checklist

The following recommendations were provided by the participants:

> It would be useful to have a technical guide because we all have different ideas about what we need to meet in terms of these standards. (Hospital F)

> Maybe the perception will be the same when there are technical instructions. That is what we may require on the web, so there may be a specific column or page on technical guidelines. (Hospital B)

> Each subcomponent must have a clear operational definition so that everyone in the hospital is on the same page. (DHOX)

The checklist, according to hospital participants and the DHO, should be accompanied by verification. As is now the case, verification was carried out through site visits to specific hospitals.

> Perhaps a feature can be created where supporting evidence from each subcomponent can be downloaded, making it easier for us, the health office, to carry out the evaluation monitoring function. This will serve as our foundation for providing feedback to the hospital. (DHOX)

> Verification evidence should be linked to a director's decision, guidelines, or anything else, making it easier to complete. (Hospital G)

The participants in the hospital also hoped that the checklist could be completed centrally so that the results of filling out the checklist could be monitored.

> There is still a need for supervision because [based on previous experience], there are some entries that we believe meet the standards, but the health office stated that they should be improved. (Hospital F)

They also preferred the checklist to be completed using default data.

The summary of the research findings canis provided in Table 2.

Discussion

Indonesia's government, as of other countries, has made significant efforts to combat the COVID-19 pandemic. The government expected that by implementing the WHO hospital readiness, hospitals would be able to identify and map their preparation for the surge. However, we discovered some challenges in implementing the hospital readiness checklist for Indonesian hospitals. This study aimed to identify the experience and the challenges related to the hospital readiness checklist that was implemented in Indonesia. Despite having been completed two or three times, several challenges identified by DHO and hospitals included the following: the reporting and review process was still done manually and took longer time, there was no structured feedback system, there was no common instruction or guidelines for each item reported, and there was no infrastructure for data saving and uploading supporting documents.

First, at the time this study was conducted, the checklists were filled out two to three times. By implementing the checklist, the hospital should be able to determine the level of readiness for the pandemic and identify the weaknesses of the hospital that needed to be addressed.[4,7] Repeatedly filling out checklists could be used as a benchmark in evaluating progress and identifying gaps in the assessment domain.[6,14] The checklist results could also be used to develop strategic plans and countermeasures for the COVID-19 pandemic.[4] However, because DHO requires manual checking and site

Table 2 Hospital Readiness Checklist Experiences and Challenges

Stakeholder	Experiences	Challenges
DHO	Performed monitoring and evaluation functions	a. Manually assessing the checklist is required, which takes time b. A site visit is required for data verification c. How to provide feedback in an effective and efficient manner to hospital
Hospitals in East Java and Bali Provinces	a. The checklists have been completed twice or three times at the hospital. b. The checklist is completed every quarter	a. Must manually complete the sheet b. No feature is available for uploading supporting evidence. c. Coordination and communication difficulties within the hospital system d. Differences in perception in completing the checklist e. Lack of feedback from DHO f. By default, no data are saved.

visits as needed, which causes the review time to be lengthy, there may be a delay in carrying out the operational plan to close the assessment gap.

Second, manual form filling may impede hospital performance, particularly during the COVID-19 pandemic, when health workers are already overburdened.[20] Usually, just like in other country, a designated hospital representative was in charge of filling out the checklist.[5] Coordination among hospital units is also difficult due to a lack of technical instruction. Furthermore, because there was no requirement to upload supporting evidence when filling out the checklist, it is feared that the officers will only fill in based on their respective perceptions, potentially resulting in a biased outcome. This supported the findings of previous research in which the results of completing assessments in Nigeria were not independently verified, potentially leading to response bias.[5]

The third issue was a lack of feedback, as hospital participants expressed dissatisfaction with the feedback from DHO. DHO, on the other hand, stated that feedback was provided during a three-month meeting to which all area hospitals were invited. The problem is the feedback was not provided promptly because DHO requires time to manually access and recapitulate the checklist. The checklist results that were returned to the hospital could be used as evaluation material and could help the hospital to identify strengths and weaknesses.[6,8,] The checklist should be simple and takes into account user perspectives and needs,[21] so that hospitals can receive feedback on the assessment either from DHO, PHO and MOH.

Fourth, in order to get maximum benefit from checklist implementation, the hospital readiness checklist could be expanded into public reporting. Previous research suggests that public reporting could be used to create change at the hospital level by increasing transparency and accountability of health services, encouraging quality of care, and improving both performance and productivity.[22–24] In Australia, public hospital performance is publicly reported via the MyHospital website.[23] In the US, the Centers for Medicare and Medicaid Services developed star ratings to evaluate hospital performance, including seven assessment domains (mortality, safety, readmission), patient experience, the effectiveness of care service, timeliness of care, and efficient use of medical imaging,[25] which could help consumers make decisions. Furthermore, during Covid-19, decisions must be made quickly and efficiently. If the checklist was in public reporting form, the hospital's reporting time would be more efficient because supporting documentation could be uploaded directly to the website, and the time needed for data verification and assessment would be reduced because all required documents would be in one place.

Fifth, completing the checklist is preferable if done centrally in a system such as a web-based platform, which is widely used in Indonesia for the assessment of hospital performance, such as accreditation assessment and hospital quality indicator assessment. Conducting a centralized assessment could help stakeholders make decisions and monitor hospital readiness.[26] A national assessment was deemed feasible for improving a country's pandemic preparedness.[26] As another example of how the assessment was used in 2013, the Emergency Unit conducted a centralized assessment of pediatric preparedness in the United States and was able to identify future weaknesses and barriers as well as evaluate the presence of resources on pediatric preparedness.[27]

There has been little research into WHO hospital readiness checklists in Indonesian hospitals. The purpose of this study was to identify the experience and challenges in completing the hospital readiness checklist. There were some limitations to this study. First, because the participants in the study were drawn from hospitals in East Java and Bali, as well as the City X Health Office, the findings could not be generalized to other Indonesian provinces. The findings, like those of any qualitative study, are subject to interpretation and cannot be generalized. However, because the majority of the participants were from public hospitals, the situation could have been comparable.

Conclusion

This study, which included both hospitals and the health office, described the challenges encountered in the implementation and assessment of the hospital readiness checklist. Both hospitals and DHO experienced some challenges with the current system. The checklist has the potential to evolve into a public reporting to improve efficiency and faster decision-making.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

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